

REMARKS

Claims 1-12 are pending.

In the Office Action, the Examiner:
rejected claim 1 under 35 USC § 102(e) as being anticipated by Kim (U.S. Patent No. 6,526,347); and
objected to claims 2-12 as being dependent upon a rejected base claim.

Applicants gratefully acknowledge the Examiner's indication that claims 2-12 would be allowable if rewritten as independent claims. Applicants have declined to rewrite these claims at this time.

Amendments to the specification have been made to properly reflect priority and to correct grammatical errors. Applicants respectfully submit that these amendments do not add any new matter into the present application.

Claim 1 was rejected as being anticipated by Kim. Claim 1, which is directed to a fuel injection quantity control device for a diesel engine, having an injection quantity determination means for determining the required fuel injection quantity based on the accelerator opening degree and engine revolution speed, recites control means for conducting a minimum cut-off control such that at the time the injection is to be restarted after fuel injection has been cut-off for the predetermined time, the fuel injection cut-off is continued when the required injection quantity determined by said injection quantity determination means is less than the prescribed minute injection quantity, and the fuel injection is restarted when the required injection quantity is equal to the prescribed minute injection quantity or larger, this restart being made with the required injection quantity attained at this time.

The Examiner asserts that Kim discloses a method for controlling a diesel engine including control (20) means for conducting a minimum cut-off control such that at the time the injection is to be restarted after fuel injection has been cut-off for a predetermined time. We disagree.

Kim discloses a method for controlling a fuel injector as a function of the speed of the vehicle and accelerator pedal position (see FIG. 1 of Kim). Kim is concerned with automatically increasing a vehicle speed limit to a specific level to enable an increase in speed by operation of the accelerator pedal when a vehicle is traveling on a downgrade (col. 2, lines 8-11). According to Kim, when the vehicle speed exceeds the vehicle speed limit, the control 20 outputs a fuel supply cut-off signal (col. 3, lines 23-25). Based on first, second and third predetermined speed values and a fourth predetermined accelerator pedal position value (see col. 2, lines 46-56 and FIG. 2), a new speed vehicle speed limit is determined (col. 3, lines 25-35). When the detected vehicle speed is less than the new vehicle speed limit, the control unit 20 outputs a fuel supply control signal (col. 3, lines 37-39 and FIG. 2, items S320 and S240).

Kim fails to disclose control means for conducting a minimum cut-off control such that at the time the injection is to be restarted after fuel injection has been cut-off for the predetermined time, as recited in claim 1. Kim fails to disclose that the fuel injection is cut-off for a predetermined time. Indeed, Kim specifically discloses that the fuel supply cut-off is based on vehicle speed and that the restart fuel supply control signal is based on vehicle speed, predetermined vehicle speed values and a predetermined accelerator pedal position. Kim fails to disclose any set predetermined time for fuel supply cut-off or that fuel injection is to be restarted only after a time equal to such a predetermined time. This is best seen by noting that the flow chart shown in FIG. 2 fails to disclose comparing a time from fuel supply cut-off to any predetermined time.

The Examiner further asserts that Kim discloses that fuel injection is restarted when the required injection quantity is equal to the prescribed minute injection quantity or greater. We disagree.

Kim fails to disclose that fuel injection is restarted when the required injection quantity is equal to the prescribed minute injection quantity or larger, as recited in claim 1. As discussed above, Kim discloses a method for controlling a fuel injector as a function of the speed of the vehicle and accelerator pedal

position. Kim fails to disclose any prescribed minute injection quantity. Kim fails to disclose that the start of fuel injection is only when the required injection quantity is equal to or greater than any such prescribed minute injection quantity. Rather, Kim discloses that when the actual vehicle speed is less than the calculated new vehicle speed limit, the control unit 20 outputs a fuel supply control signal to the fuel injector such that the vehicle increases to a speed corresponding to the position of the accelerator pedal (col. 4, lines 44-48). Whether or not to restart the supply is not dependent upon comparing the required injection quantity to a prescribed minute injection quantity

Kim fails to disclose restarting fuel injection after a predetermined time, as recited in claim 1. Kim also fails to disclose a prescribed minute injection quantity, wherein the fuel injection is restarted if the required injection quantity is equal to or greater than this prescribed minute injection quantity, as recited in claim 1. As each and every element of claim 1 is not disclosed by Kim, Kim fails to anticipate claim 1. Applicants respectfully request that the Examiner withdraw the section 102 rejection of claim 1 and pass claim 1 to issue.

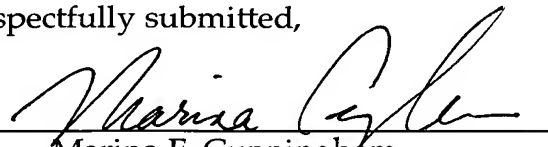
In view of the foregoing, it is respectfully submitted that claims 1-12 and the present application are in condition for allowance, and action to that effect is earnestly solicited.

Should the Examiner have any question regarding the present application, Applicant respectfully requests that the Examiner contact Applicants' representative at the phone number listed below.

Although Applicants do not believe a fee is due with the submission of this Response, if it is deemed that a fee is required, please charge to Deposit Account 13-0235.

Respectfully submitted,

By



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